



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**MCAVOY MCDUGAL**  
 Machine Id  
**783 783**  
 Component  
**Left Final Drive**  
 Fluid  
**SHELL SPIRAX HD 85W140 (1 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0939226</b>	WCMCF50891	WCMCF28410
Sample Date		Client Info		<b>24 May 2024</b>	04 May 2018	29 Jan 2016
Machine Age	hrs	Client Info		<b>3226</b>	2240	2699
Oil Age	hrs	Client Info		<b>1366</b>	2240	582
Filter Age	hrs	Client Info		<b>1366</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>46</b>	33	69
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	<1	<1
Lead	ppm	ASTM D5185m	>25	<b>0</b>	1	1
Copper	ppm	ASTM D5185m	>50	<b>22</b>	18	24
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

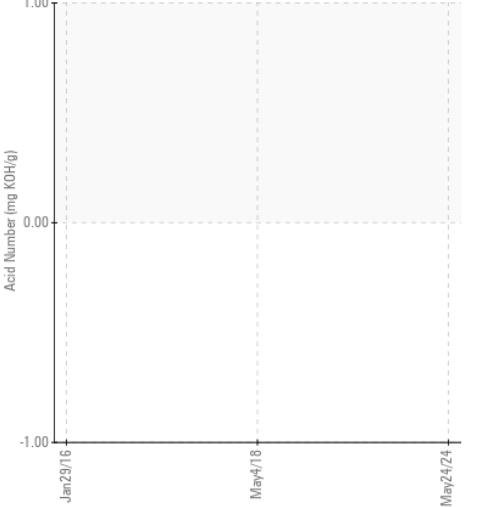
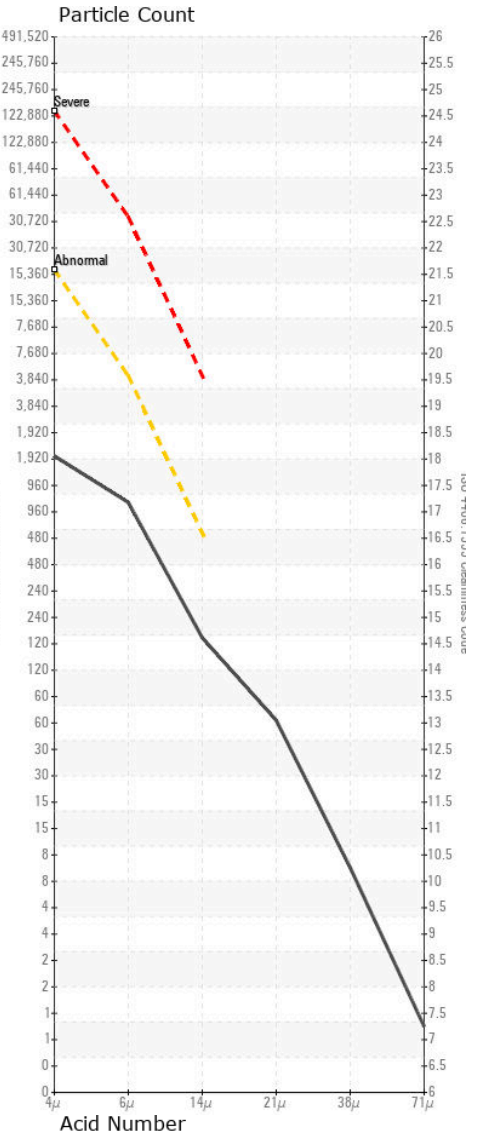
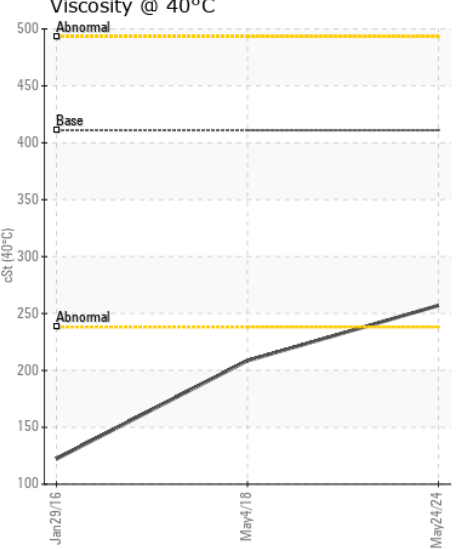
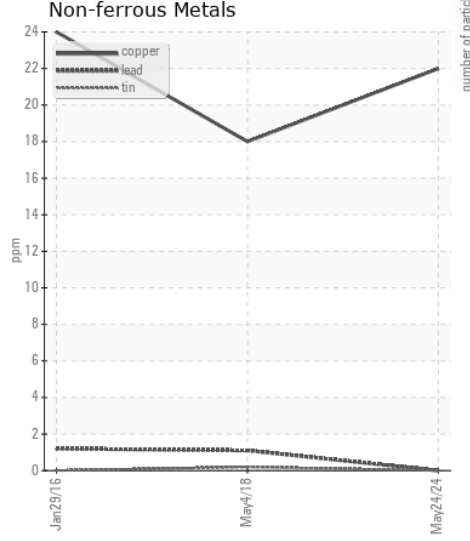
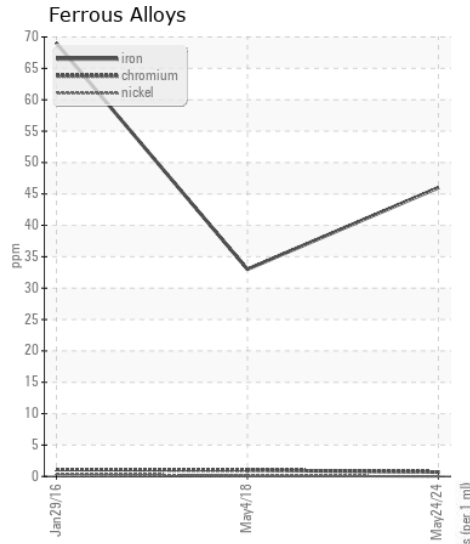
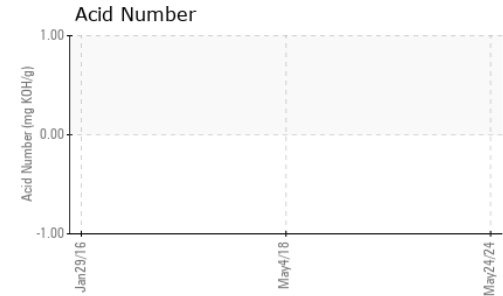
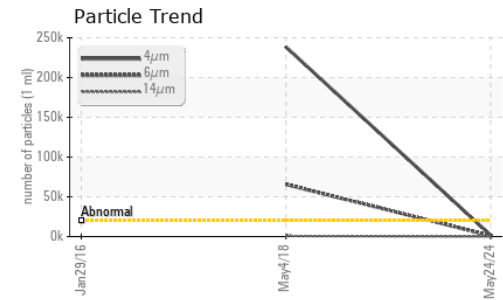
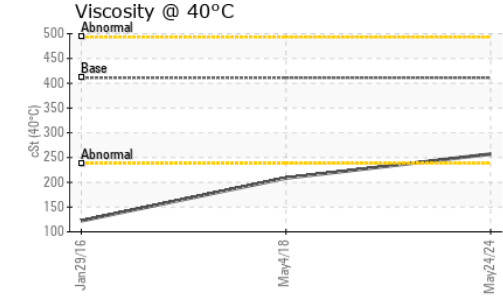
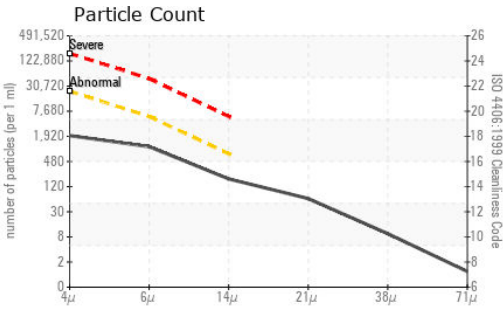
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>8</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>1749</b>	▲ 238520	---
Particles >6µm		ASTM D7647	>5000	<b>953</b>	▲ 65620	---
Particles >14µm		ASTM D7647	>640	<b>162</b>	● 749	---
Particles >21µm		ASTM D7647	>160	<b>55</b>	79	---
Particles >38µm		ASTM D7647	>40	<b>8</b>	1	---
Particles >71µm		ASTM D7647	>10	<b>1</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>18/17/15</b>	▲ 25/23/17	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>4</b>	4	6
Boron	ppm	ASTM D5185m		<b>150</b>	104	9
Barium	ppm	ASTM D5185m		<b>0</b>	<1	1
Molybdenum	ppm	ASTM D5185m		<b>2</b>	3	0
Manganese	ppm	ASTM D5185m		<b>2</b>	1	2
Magnesium	ppm	ASTM D5185m		<b>30</b>	32	19
Calcium	ppm	ASTM D5185m		<b>82</b>	106	130
Phosphorus	ppm	ASTM D5185m		<b>1031</b>	624	299
Zinc	ppm	ASTM D5185m		<b>89</b>	82	82
Sulfur	ppm	ASTM D5185m		<b>29806</b>	11049	12584
Visc @ 40°C	cSt	ASTM D445	411	<b>257</b>	208.5	● 122.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0939226 **Received** : 29 May 2024  
**Lab Number** : 06193850 **Tested** : 01 Jun 2024  
**Unique Number** : 11055973 **Diagnosed** : 01 Jun 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PrtCount )

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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